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ABSTRACT

This study examined trends in tuition and fees at private institutions of higher education, compared the fees with those at public institutions, and evaluated effects on need-based student financial aid. Data were collected from 150 private colleges and universities, from the Integrated Postsecondary Education Data Series, from the Entering Freshmen Survey of the Higher Education Research Institute, and from the Financial Aid Survey of the Higher Education Data Sharing Consortium. Among findings were: (1) since the 1980s tuition and fee charges at private institutions have been increasing at a faster rate than the growth of family income; (2) although proportionate dependence of institutions on tuition revenues held constant from 1980-91, financial aid expenditures rose from 19.6 percent to 25.8 percent; (3) there was an increasing gap from 1980 to 1990 between the median family incomes of entering students at private and public institutions; and (4) the median family income of students receiving need-based aid rose well below the rate of increasing tuition charges. Results suggest that trustees should work to control the rate of escalation in student charges, differentiate their institution clearly in services and/or markets, and maintain a defensible pricing policy. (Contains 11 references.) (LEE)

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Association of Governing Boards of Universities and Colleges

Long-Term Tuition Policy: What Happens When Tuition Rises Faster Than Ability To Pay?

By John A. Dunn, Jr.

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Association of Governing Boards
of Colleges and Universities
One Dupont Circle • Suite 400
Washington, D.C. 20036
Tel: 202/296-8400 Fax: 202/223-7053

LONG-TERM TUITION POLICY:
WHAT HAPPENS WHEN TUITION RISES
FASTER THAN ABILITY TO PAY ?

SUMMARY

Raising tuition and fee charges at a rate faster than the growth of family income ultimately is self-defeating:

* It forces colleges to divert into financial aid some of the revenue they otherwise could spend for programs.
* It narrows the population of students who can afford to attend those colleges.
* It undermines the social contract that supports the concept of financial aid based on need.

Although individual institutions must face fierce competition for a smaller pool of students and are victims of the nation's failure to increase productivity and hence real income, trustees can take certain steps to minimize the potentially damaging side effects of these problems.

These are the conclusions of a study conducted in 1992 by the Center for Planning Information (CPI) at Tufts University, under a grant from the Davis Educational Foundation. The research focused on 150 selective high-cost private institutions, 125 of which are members of the Higher Education Data Sharing Foundation (HEDS).

The findings are of immediate relevance to trustees, who have the final responsibility for approving the tuition and room and board charges that generate most of an institution's revenues and the operating budgets that designate how those funds will be spent. Unfortunately, intense, short-term educational and political pressures on board members regarding expenditures can blind them to the long-term effects of their decisions regarding student fees.

College charges and ability to pay. Tuition and room and board charges at private institutions have risen faster than inflation at least since World War II. From the late 1940s through the late 1970s, national median family income kept pace with or exceeded that increase. That meant that the cost of private higher education rose in real dollars, but not in relation to family ability to pay. During the 1980s, however, this relationship changed: College costs rose more rapidly than before, and national median family income failed to grow.

Private higher education for the last decade has become steadily more expensive in relation to ability to pay.

Effects on institutional budgets. Although the leading private colleges and universities raised their tuition revenues rapidly during the last decade, they were able to increase other sources of revenue at least as fast. The proportionate dependence on tuition revenues to pay educational and general expenditures held remarkably constant from 1980-91.

Financial-aid expenditures at these institutions, however, rose steadily and materially during the decade as a percentage of tuition and fee revenues, from about 19.6 percent to 25.8 percent. The proportion of aid supplied by federal and state grants, restricted gifts and endowment slipped very slightly in relation to tuition revenues. That meant that the institutions had to fill the gap from unrestricted funds, which could otherwise have gone for educational programs. In 1980, aid from unrestricted funds was equal to 9.8 percent of tuition revenues; by 1991 the amount had almost doubled to 17.3 percent. One effect of these changes is that these institutions now receive a smaller net benefit from each incremental tuition dollar than they did a decade ago--about 75 cents in 1990 compared with about 89 cents in 1980.

Effects on distribution of students by family income level. Estimated median family incomes of entering students at private colleges and universities were higher than those at public institutions in 1980, and the gap widened during the 1980s for some categories of institutions.

During the 1980s, the distribution of family incomes flattened and spread upward for the students at both public and private institutions. By 1990, the family income distributions at most categories of private institutions resembled an inclined plane more than a bell curve: The percentage of entering students rose with each higher income category, and there were more students from families with incomes of more than $150,000 than from any other income group.

Effects on the distribution of financial aid, by income level. The median family income of students who received need-based aid rose only slowly from 1986-91--at about the rate of inflation and well below the rate at which these institutions were increasing their tuition charges. The distribution of aided students by income level also shifted upward during this period, but not in a dramatic way.

The slowness by which the median family incomes of students receiving need-based aid increased in the last six

years suggests that need-based aid, while increasing substantially, explains only part of the overall increase in financial-aid expenditures. The balance would be accounted for by non-need-based aid.

An unexpected but serious side-effect of the rapid escalation of tuition rates during the 1980s, combined with competition for a limited pool of students, has been to undermine the principle of financial aid based on need. Tuition rates have risen to the point where everyone feels entitled to ask for a discount. Even strong colleges and universities have become increasingly willing to negotiate their rates, overtly through direct discounting or indirectly through manipulation of financial aid formulas. The result is that a financial-aid system funded originally by private charity and some tax revenues is progressively becoming a tax system funded by the wealthy. As that tax grows, defending it becomes more and more difficult

What trustees can do. There is little that individual colleges and universities can do to affect the underlying conditions that have caused this difficulty: the national economic failure to improve productivity (and thus real income) and the size of the pool of potential students. However, trustees and senior administrators can take steps to control the rate of escalation of their student charges, to differentiate themselves more clearly in services and/or markets, and to maintain a defensible pricing policy.

RATIONALE FOR THE STUDY

The Davis Educational Foundation has been concerned for some time about the potentially damaging side effects of the rapid rise in tuition rates at leading private colleges and universities in the 1980s.

The foundation's longer term focus has been the quality of the educational experience at these institutions, and its leaders sensed that the escalating student charges, however explainable in any given year, might over the longer run alter the mix of students who could attend. In the last decade, tuition and fee charges at these institutions rose at a faster rate than did the national median family income. As prices rose to the "sticker shock" level, some middle-income and lower income students may have opted for public rather than private higher education--or for lower cost private schools--despite the attempts of these leading institutions to provide financial aid. There may thus have been a "middle class melt," leaving these schools with small groups of aided students and large groups of wealthy ones.

The foundation also sensed that the succession of large tuition jumps could result in diminishing benefits for the institutions themselves. Most of these schools do their best to provide financial aid to students unable to meet the full cost of attendance. Thus, an increase in student charges means an increase in aid for those students. If charges rose faster than ability to pay, those students would need more help, and additional students would qualify for aid. Incremental financial-aid outlays could therefore rise even more rapidly than the incremental tuition. Each tuition increase would produce less net revenue usable for educational programs.

The foundation felt that these developments should be explored in greater depth, and if found to be true, should be convincingly illustrated and brought more sharply to the attention of boards of trustees and senior administrators. The foundation asked the Center for Planning Information, Inc. (CPI) at Tufts University to examine this question in greater depth.

SOURCES OF THE DATA

CPI is a tax-exempt not-for-profit corporation created in 1989 to assist institutions of higher education in their planning, management, and research activities. Among other activities, CPI provided data collection and analysis services for the Higher Education Data Sharing Consortium (HEDS), a group of selective private colleges and universities.

The Davis grant allowed CPI to collect data from a broad set of leading private colleges and universities. We sought data not only for the 125 members of the HEDS Consortium but for an additional 25 leading private institutions, in order to have a set that did not depend exclusively on HEDS membership. Data for this study came from various sources:

* Information on the finances of the institutions cited here came from the annual federal Integrated Postsecondary Education Data Series (IPEDS) surveys of college and university finances. The majority of the data were retrieved from HEDS historical files of these reports. They were supplemented by data from the National Science Foundation CASPAR database, from a 1990 data tape from the National Center for Education Statistics, and from files supplied by John Minter, Inc.

* Information on the family incomes of entering students was provided by the Higher Education Research Institute (HERI) from data collected in its Entering Freshmen Survey.

* Information on the family incomes of aided students came from HEDS Financial Aid surveys.

Under the operating policies of the HEDS Consortium, access to data for specific institutions is restricted to members who have supplied their own data. This report used aggregate data only, analyzed by type of institution. The data provided by CPI and HEDS are intended for use as general background material in institutional planning. While CPI and HEDS strive for accuracy, they obviously cannot warrant the accuracy of survey responses nor be responsible for consequential damages resulting from use of CPI or HEDS data.

The results reflect only the set of institutions studied and should not be interpreted as being typical of higher education as a whole.

THE RISE IN STUDENT CHARGES

Student charges rose more rapidly than inflation in the 1980s, especially at the leading selective private colleges and universities. A continuous gradual increase in real cost, however, is nothing new. Private higher education has grown more expensive in real terms at least, since World War II. From 1950 through the late 1970s, however, family incomes also increased at least as rapidly. As a percentage of the median income of all families, private college costs were high in 1950 but were no higher by 1978.

The new concern has to do with the gap that has widened in the last ten years between college costs and the ability to pay. Charges for tuition and room and board went up in real terms faster than in prior decades, and family income failed to grow. Charts 1 and 2 illustrate these points for Tufts University and for both public and private institutions nationwide.

While it is clear that student charges at private institutions rose more rapidly in the last decade than did national median income of all families, it can be argued that other factors should be taken into account when measuring ability to pay. An analysis of these factors is beyond the scope of this paper, but they should at least be mentioned.

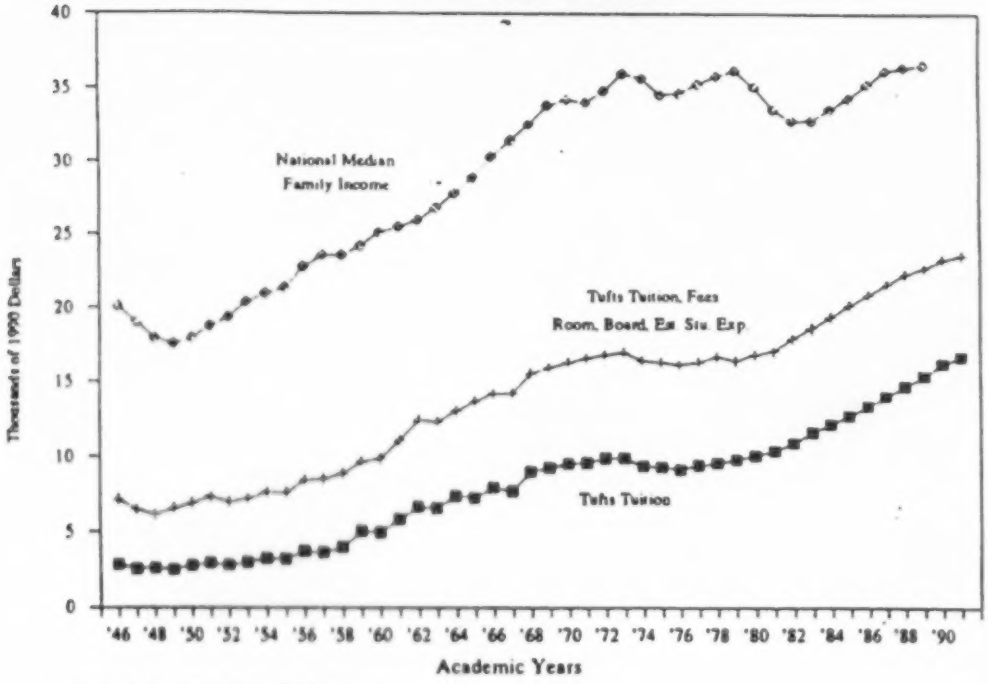
* It may be misleading to use the median income of all families as an indicator of ability to pay when it is largely middle-income and upper income families who send their children to these schools. During the 1980s, the median income of middle-income families (e.g., $30,000-$75,000 per year in 1990 dollars) barely kept pace with inflation. Lower income families saw their incomes decrease in real terms. Upper income families, however, saw an appreciable real increase in their incomes.

* Parents draw on assets as well as current income to pay for college. The upper income families on whom these colleges depend typically have far more assets to draw on than do middle-income or lower income families. On the other hand, it seems to be the case that parents no longer save for their children's education as they once did. Perhaps they find it fruitless because the projected amounts needed have become astronomical. Perhaps the second house, the new car, and the expensive vacation compete for their dollars. Perhaps families need all of both parents' incomes to meet current expenses.

* Paying for college may now be easier for the average middle-income and upper income family than it was a decade or

Chart 1:

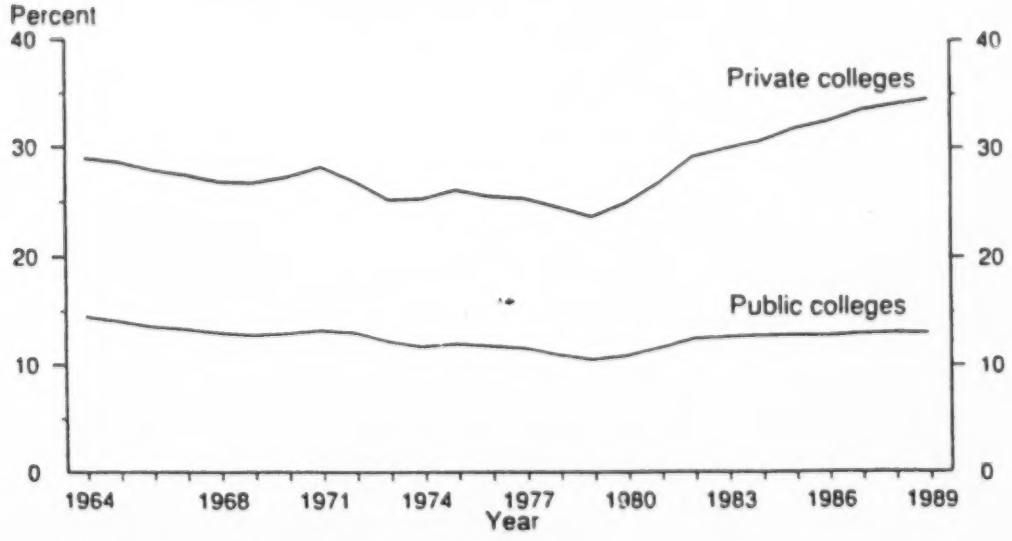
National Median Family Income, and
Cost of Attending Tufts University
In Constant 1990 Dollars
(Deflated by the Consumer Price Index)



Source: CPI *Update*, March, 1991, p. 4

Chart 2:

Tuition, Room and Board as a Percent of
Median Income of All Families, All Colleges and Universities,
By Control of Institution: 1964-1989



Source: NCES *Condition of Education, Vol. 2* 1991, p 23.

two ago because the number of children per family decreased somewhat during this period. Available resources can be concentrated on fewer children.

While these factors should be noted, the fact of the matter is that for middle-income families, private higher education became much more expensive during the 1980s, and that the full costs of education at the leading private colleges and universities now seem staggering, even to the relatively affluent.

EFFECTS ON INSTITUTIONAL BUDGETS

No increasing dependence on tuition revenues. College and university expenditures rose rapidly during the 1980s as the institutions sought to bring faculty salaries to levels more competitive with other lines of work, to catch up on plant maintenance deferred during the 1960s and 1970s, upgrade laboratory equipment, meet escalating library costs, and strengthen both academic and administrative computing. It is to pay for such increases that boards of trustees and presidents approved the escalating tuition charges. Because other sources of revenue would seem less susceptible to rapid change, one might suspect that these colleges and universities had become proportionately more dependent on tuition revenues to meet their bills.

In fact, that did not happen. The dependence on tuition revenues to pay educational and general expenses at these institutions held remarkably constant from 1980-91.

For the 148 leading private institutions in this sample, the percentage of educational and general expenditures covered by tuition revenues remained at about 45 percent during this period. For three of the four institutional categories, the reliance on tuition also held fairly steady--the research universities at 36 percent, the doctoral universities at 59 percent, the liberal arts colleges at 65 percent. For the comprehensive institutions, the tuition dependence actually dropped slihtly, from more than 60 percent to about 55 percent. Although these colleges were rapidly raising their tuition revenues during the 1980s, they were able to increase other sources of revenue at least as fast.

Disproportionate increases in financial aid. Since college charges were rising faster than ability to pay, we would also expect to find that these institutions had to dedicate larger shares of their tuition revenues to student aid. In fact, that is exactly what happened. Financial-aid expenditures rose steadily and materially as a percent of tuition and fee revenues during this period.

For the set of sample institutions, financial-aid expenditures amounted to 19.6 percent of tuition revenues in 1980 but rose to about 25.8 percent by 1991. During this decade, financial aid consumed a steadily larger share of their educational and general expenditures, from 8.8 percent to 11.5 percent. The rise was proportionately largest for the comprehensive universities, going from 12.4 percent to 20.2 percent. It was almost equally painful for the liberal arts

colleges, which saw their aid amounts jump from 18.4 percent to 28.6 percent, and for the doctoral universities, with a rise from 14.9 percent to more than 22 percent. At the research universities, the rise was more gradual but still marked, from 22.6 percent to more than 26.6 percent.

This phenomenon was not caused by a radical shift in a few institutions but by a wholesale movement. In 1980, for instance, the middle 50 percent of the liberal arts colleges in this sample fell between 14.6 percent and 22.3 in their aid expenditures as a proportion to tuition revenue. By 1990, the middle range had shifted upward from 22.9 percent to 32.6 percent.

Clearly, these institutions found during the 1980s that it was inadequate simply to increase student financial aid at the same rate they boosted tuition. They had to increase student financial aid far more rapidly.

More aid coming from institutional sources. Externally funded sources of aid, such as federal and state grants and restricted endowment and gifts, failed to grow as rapidly as tuition revenues during this period. Since the need for aid rose appreciably faster than tuition revenues, institutions were forced to fill the gap from institutional unrestricted sources--that is, from funds that might otherwise have gone for faclty salaries, books, or equipment.

As previously noted, total aid expenditures at these institutions rose from 19.2 percent of tuition revenues in 1980 to 25.9 percent in 1991. For the institutions in this sample, restricted sources of financial aid provided the equivalent of 9.8 percent of tuition revenues in 1980, which eroded slightly to an estimated 8.7 percent in 1991. These sources included Pell grants and other federal aid, state and local government aid, and aid from restricted private gifts and institutional student-aid endowments.

The balance of the aid needed had to come from unrestricted funds--that is, from funds the institution otherwise could have spent for academic programs. This balance almost doubled during the period, from an equivalent of 9.8 percent of tuition revenues to 17.3 percent.

This picture varied only slightly by institutional category. The increase in unrestricted aid needed at the research universities was a bit more modest than for the other categories, but the increase for the doctoral universities was noticeably more painful.

Decreasing benefits from tuition increases. Since aid requirements have risen faster than tuition revenues, institutions receive progressivey smaller benefits in net incremenal revenue from each increase in tuition.

This general principle holds true, although the results for any specific institution will depend on its own pattern of tuition rate increases, changes in enrollment, eligibility for federal benefits, and similar factors.

We developed a calculation for a mythical institution, based on the financial-aid trends for this entire group of institutions, a flat enrollment of 2,000 students, and the tuition rates that Tufts University charged during the period. The benefit from each successive tuition increase declined steadily but not smoothly, because the tuition rate changes were not even. Nonetheless, it is clear that while the mythical institution realized 89 cents of the incremental tuition dollar in 1980, it realized only 75 cents on the incremental dollar in 1990.

EFFECTS ON THE DISTRIBUTION OF ENROLLING STUDENTS BY FAMILY INCOME LEVEL

Up to this point in our study, the findings simply validate common knowledge: Student charges at these leading private colleges and universities rose faster than ability to pay during the 1980s, and these institutions had to increase their financial-aid expenditures even more rapidly than they raised their tuition rates. There is a conventional explanation for why financial aid rose so rapidly:

* In terms of ability to pay, the student body shows a roughly normal distribution, like a bell curve.

* Some proportion of the student body qualifies for financial aid at the current level of student charges. This "aid eligible" segment falls on the left-hand tail and part of the ascending slope of the bell curve of income distribution.

* If student charges rose at the same rate as ability to pay, there would be no change over time in the proportion of the student body qualifying for aid. In that case the whole bell curve would shift to the right, and the aid-eligible segment would remain the same.

* When student charges rise faster than ability to pay, there are two effects that accelerate the need for aid: The students who already qualified for aid need increased amounts, and the proportion of the student body qualifying for aid increases. The eligibility line shifts to the right, cutting deeper into the bell curve. The need for aid resources increases disproportionately.

There is a certain appealing simplicity and logic to this mental model. Unfortunately, the model has two serious flaws: It ignores the effect that rapidly rising tuition rates have over time on the income distribution of the student body, and it erroneously assumes a roughly normal distribution of family incomes.

On more careful thought, we would expect that the price escalations at private colleges and universities had an effect over time on who could attend. We would expect to see the gap widen between family incomes at private and public institutions. And within the private institutions, we would expect to see a growing proportion of students from upper income families and a decreasing proportion from middle and lower incomes.

To test these hypotheses, we asked the Higher Education Research Institute (HERI) at UCLA to extract data on family incomes over time from the responses to their Entering Freshmen Survey. That survey asks enrolling freshmen, among other things, to estimate their family's income. Such estimates are of shaky validity of course, but they are the only information available. With a large number of responses over a number of years, a fairly reliable pattern emerges.

Estimated median family incomes of entering students at private colleges and universities was higher than at public institutions throughout the 1980s, and the gap widened for some categories of institutions.

It is not surprising to find that the median family incomes at all categories of private institutions were consistently higher than those at equivalent public institutions. For three categories of institutions--Research I, Research II, and Doctoral II schools--the gap between incomes at private and public schools widened during the decade. Incomes at private Research I universities were 27 percent higher than the public Research I schools in 1981, but 36 percent higher in 1990. Private Research IIs went from 54 percent to 66 percent higher, and Doctoral IIs from 14 percent to 32 percent higher. At the other categories of institutions--Doctoral I and Comprehensive I and II--the gap between public and private remained, but did not widen materially. Too few public Liberal Arts colleges participated in the survey for the results to be meaningful for that category.

During the 1980s, the distribution of family incomes flattened and spread upward for the students at both public and private institutions. The effect was more marked in private institutions, however, and by 1990 the family-income distributions at most categories of private institutions resembled an inclined plane more than a bell curve. The percentage of entering students rose with each higher income category, and there were more students from families with incomes of more than $150,000 than from any other income level.

The Research I universities can serve as an example. At public Research I universities, the distribution of incomes in both 1985 and 1990 somewhat resembled the classic bell curve, though the curve had significantly flattened during the period. At the private Research I universities, the situation was far different. Even in 1985, the distribution of incomes was essentially flat except at the low-income end, with about the same percentage of the student body in each of the income

categories of $20,000-$30,000, $30,000-$40,000, $40-$50,000, $60,000-$75,000, $75,000-$100,000, $100,000-$150,000, and upwards of $150,000. In 1990, the percentage rose steadily at each higher income level, culminating with more than 20 percent of the students coming from families with annual incomes of $150,000 or more.

The picture at each of the other category of private colleges and universities was similar. The $150,000+ class represented the largest fraction of the enrolling stuents in 1990 at Private Research I, Research II, Doctoral II, and Liberal Arts I institutions.

The data on estimated median family incomes gives modest support to the theory that the rapidly increasing tuition charges at private institutions caused a shift in the distribution of students by family income level. At three of the six institutional categories, the gap between incomes at public and private institutions widened, but at three others it remained essentially constant.

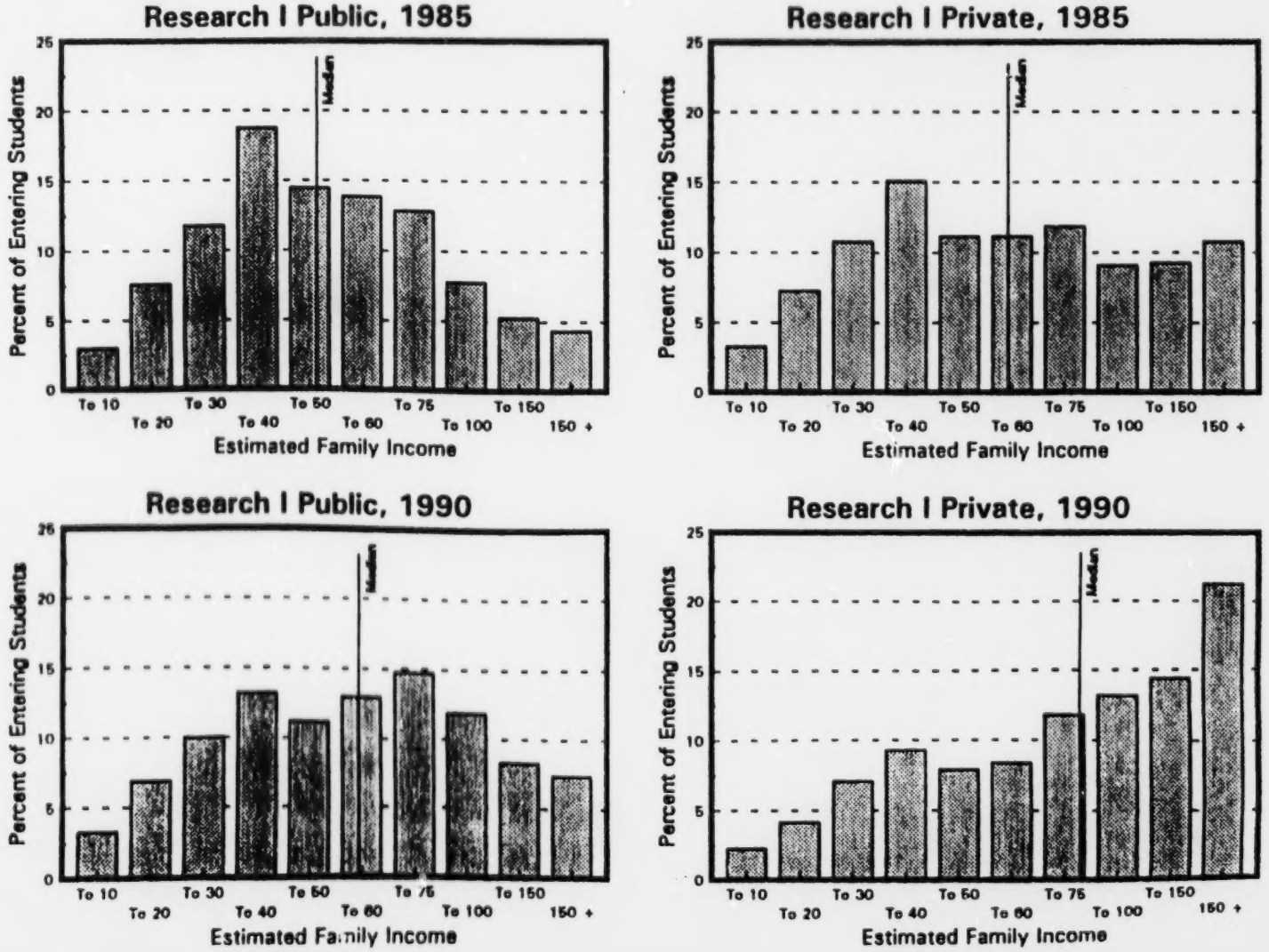
The data on the distribution of incomes, however, gives stronger evidence of the effect of the increasing tuitions on the attendance pattern by income level. The proportion of students at the top income levels of the private institutions increased sharply. Even more striking is the fact that the distribution of incomes, flat above $40,000 in 1985, deserted all similarity to a normal distribution by 1990; the percentage of enrolling students simply increased with each higher income category.

This finding, however, undercuts the mental model presented earlier. That model accounted for the rapid rise in financial-aid expenditures based on the increasing slices taken from the supposedly normal distribution of students by family income. The distribution, it turns out, is not normal. With the gradual increasing slope of the actual income distribution, the toll taken by increasing the aid eligibility level is not so severe.

If the mental model is wrong, or at least overstates the case, what is it that causes the increase in aid spending?

Chart 5

DISTRIBUTION OF ESTIMATED FAMILY INCOMES OF ENTERING STUDENTS



Source: HERI Entering Freshmen Survey

EFFECTS ON THE DISTRIBUTION OF FINANCIAL AID, BY FAMILY INCOME LEVEL

If tuition rates rose faster than families' ability to pay, we would expect to see a noticeable increase in the family-income levels of the students who receive financial aid. Several factors might contribute to this effect:

* Some lower income families would be put off by the rapidly increasing "sticker price" and would not even apply to the institution, whether or not the institution was prepared to offer them aid. Thus, the income distribution of the enrolling students would shift upward.

* Some families at income levels that previously had not qualified for financial aid now would be eligible.

* Finally, a larger number of families who would still not qualify for need-based aid might apply in any case and might receive some aid, just to keep their children enrolled.

We would expect to see the median income of aid recipients rise significantly. More specifically, we would expect to see a shift in the income distribution of aided families, with the proportion of lower income families declining and the proportion of higher income families rising.

Underlying these expectations is the assumption that these leading private institutions give financial aid based on the financial need of the students. Before attempting to test these expectations, we need to provide some definitions of need-based aid and non-need-based aid.

Need-based aid is simple in its concept, but can become highly technical in its application. For our purposes, most of the technical considerations can be put aside. The first step in determining the amount of need-based financial aid to be awarded to a student is to add up the costs of attending the institution--tuition, fees, room and board (if the student is in a residential program), and some allowance for books and other essential expenditures. Next, the aid office assesses the contribution toward the cost of attendance the student and his or her family is reasonably expected to make. This contribution comes from the student's savings and expected summer earnings and from the parents' current income and assets. The difference between the cost of attendance and the expected contribution is the amount of financial aid needed. The institution will typically attempt to meet that need from a "package" of federal and state grant and loan programs, work-study or other campus

jobs, and usually some institutional grant or loan funds. Most of the leading private institutions in this sample will attempt, if possible, to provide an aid package that meets the student's full financial need.

From the student's point of view, both the amount and the composition of the aid package are important. Some components of this aid package are more desirable than others. Grants, for instance, are outright gifts and do not have to be repaid, whereas loans require repayment. Some loan programs have lower interest rates than others, or have deferral features that make them more attractive. Many institutions attempt to provide packages with similar mixes of grants and loans to all students; other institutions use "differential packaging," offering more desirable packages to more desirable students. So long as the amount of the aid package does not exceed the calculated need of the student, we can refer to this aid as "need based."

Many institutions also provide "non-need-based" aid to attract desirable students in today's competitive market. These non-need-based awards may be "merit scholarships" given to particularly bright students; athletic scholarships; or scholarships, fellowships, or other awards for students who bring geographic or ethnic diversity or other talents or characteristics. This sort of aid is typically given as grants but may also take the form of no-interest or low-interest loans. What distinguishes non-need-based aid is that the amount exceeds the calculated need of the student; indeed, most non-need-based aid is provided without any need calculation at all.

Our ability to test the expectations about the effects of rising tuition charges on the distribution of financial aid is limited by the fact that we only have data on need-based aid. We have no systematic data on non-need-based aid.

The annual financial-aid survey of the HEDS Consortium provided six years worth of data on the family-income distribution of students who received need-based aid. Only those institutions that reported median income of aided families and distribution of those income levels in at least three of the six years were included--a total of approximately 80 institutions.

The median family income of students who received need-based aid rose only slowly from 1986-91--at about the rate of inflation and well below the rate at which these institutions were increasing their tuition charges. The distribution of aided students by family income level also shifted upward during this period but not in a dramatic way.

* The median family income of aided students rose from 1986-91 at only 3 percent to 5 percent per year, a rate that roughly paralleled inflation and was well below the rate at which these institutions were increasing their student charges.

* The proportions of aided students whose parents' incomes were $15,000-$29,999 and $30,000-$44,999 stayed fairly constant during the six-year period and constituted just under half of all aided families. At the lower end of the income spectrum (under $15,000), some attrition is visible, with the proportion dropping from 17 percent to 11 percent. The proportion earning $45,000 or more rose from 34 percent to 45 percent.

* Fewer institutions reported incomes of aided families in the categories over $45,000, so the data are less reliable. It appears, however, that the proportion earning $75,000 or more who still received aid rose from less than 5 percent to about 9 percent.

* The changes in income distribution do not appear to vary much by type of institution.

These conclusions are slightly puzzling.

On the one hand, the shift in family income distribution of aided students is similar to the shift we noted among family incomes of entering students. The proportion of low-income families being aided in these institutions is dropping. (At these low-income levels, we can be fairly confident that the number aided closely tracks the total number enrolled, since the students could not be at the school without receiving aid.) The proportion of higher income families being aided has grown. The median income of aided families has shifted upward.

On the other hand, these shifts have been slow, at about the rate of inflation and below the rate of increase of student charges. We know that the "mental model" presented earlier is wrong in its assumption of a normal distribution of students by family income level. That model projected that an increase in tuition and room and board that exceeds the increase in families' ability to pay would result in a sharp rise in the number of students eligible for aid. We know from the data in the last section that the income distribution looks more like an inclined plane than a bell curve. With the revised model, the numbers of students eligible for aid increases more slowly as student charges outpace ability to pay. This reduction in the projected growth of eligibility may explain part of the "slowness" in the rise of family incomes of aided students.

The small shift in the income levels of aided students, however, would not seem sufficient to explain the marked increase in total financial aid exenditures noted at the beginning of this paper.

All the data in this section refer to need-based aid. We suspect that non-need-based aid grew rapidly during the 1980s, and now accounts for a significant share of aid at many (but not all) of these colleges and universities. Unfortunately, the HEDS financial-aid survey focuses almost exclusively on need-based aid, so we cannot document this suspicion.

DISCUSSION AND SPECULATION: EROSION OF THE PRINCIPLE OF NEED-BASED AID?

It is worth remembering that social phenomena such as those we have been tracking are complicated. A number of changes occur simultaneously, and it is extremely difficult to sort out causes and effects. During the period we are discussing, family incomes changed in quite different ways for different segments of society. While the 1980s were generally prosperous, some sections of the economy and some geographic areas were hard hit. The number of single-parent families grew sharply. Conspicuous consumption was a positive social value, at least for a while and for a part of the society. The supply of prospective students for whom these schools were competing shrank in the latter part of the 1980s and continues to do so. The federal government changed the amount and form of its student-aid program. The federal government also prohibited the schools in the "overlap group" from comparing financial-aid offers to individuals, purportedly in the interest of increasing price competition among institutions.

Earlier sections of this analysis indicate that during the 1980s these leading private colleges and universities:

* increased their student charges at a more rapid pace than the rise in median income of all families;

* found their financial-aid expenditures rising as a percentage of tuition revenues, from 19.6 percent to 25.8 percent;

* had to provide almost all of this increase from unrestricted funds, since restricted aid funds failed to hold steady as a percentage of tuition revenues;

* experienced a rapid shift upward in the distribution of their entering students by income level; but

* experienced only a slow rise in the family income level of the students to whom they were giving need-based aid.

<u>One of the serious detrimental side-effects of the rapid increase in tuition prices has been an erosion in the principle of financial aid based on need.</u>

Most of these leading private institutions have attempted to offset the effects of these price increases with escalations in their aid budgets; there is no question that need-based-aid has grown. For many of these colleges and universities, the

guiding principles of admissions and social equity have been to admit students based on their accomplishments and potential and then to give financial aid to those unable to pay the full costs of attendance. As their tuition charges have escalated, and restricted sources of aid have stayed relatively flat, these institutions find that they have to squeeze out more and more aid from unrestricted sources. Several have indicated that they would not be able to retain their "need blind" admissions policies in the future.

As tuition rates have skyrocketed in recent years, and as the competition for a shrinking pool of high-talent students has grown more aggressive, there has been more and more "negotiated tuition," even among the best schools. It should be recognized that even those schools that claim to practice need-blind admissions do a good deal of "differential packaging." That is, an admissions office with two prospective students with equal demonstrated need (say, $10,000) might offer the more attractive candidate $8,000 in grants and $2,000 in loans, whereas the other candidate's package would be $5,000 in grants and $5,000 in loans. This is not normally considered "negotiated tuition," but in this case the better candidate receives an education at an annual $3,000 discount.

It has also become much more common for students to shop for the best aid offer. Just as in shopping for a car, they will tell College X what College Y offered them, and ask if College X can't at least match or better it. More often than not,. the admissions or aid officer at College X will review the aid application and find some way to "sweeten the deal." Again, most admissions officers will resist calling this "negotiating the tuition," but that is, in effect, precisely what is happening. Admissions applications are up this year at many of these schools; since the population of prospective students has not increased, one possible reason for the increased applications is aid shopping.

In addition to an erosion of the principle of need-based aid through negotiation, there has been a substantial growth of non-need-based aid, although this cannot be documented. The increase in need-based aid explains only part of the observed growth of financial-aid expenditures.

Many institutions do not attempt to follow a need-blind admissions policy. In its pure form, need-blind admissions is largely a phenomenon of the prestigious old-line colleges and universities in the Northeast. Schools in the South and West have for years been somewhat freer in "negotiating" tuition charges. They have an aid budget, and they spend it in the ways

they find most productive in enrolling the size and character of class they want. Some of the aid will be need-based, but some will go to help attract academically talented students, athletes, or other desirable prospects.

At a great many colleges, a balder form of tuition negotiation is also being attempted. A parent will tell the admissions officer that he or she could perfectly well pay the tuition charges but doesn't intend to do so, and will ask straightforwardly what it is worth to the institution to admit his or her child. And more often than not, the admissions officer will continue the conversation rather than forcibly eject the parent from the room.

All these practices are spreading rapidly. And, as the automotive manufacturers have found, it is extremely difficult to stop discounting once you have started it.

In short, one of the detrimental side effects of the rapid escalation of tuition rates during the 1980s has been to erode the principle of financial aid based on need. The rates have escalated to levels at which everyone feels entitled to ask for a discount. These colleges and universities, battling to attract the best students they can and sometimes just to enroll enough students to fill their classes, are increasingly willing to negotiate their rates--overtly through direct tuition discounting or indirectly through manipulation of financial aid formulas.

Again, it is difficult to be precise about cause and effect in these complex social phenomena. The high level of current tuition prices at these leading institutions is only one factor in the increased willingness of schools to negotiate tuition and to provide more non-need-based aid; others include heightened competition for a smaller pool of students, changes in social values and in government programs, and changes in antitrust regulation. Although the escalation in tuition rates has contributed to this problem, it would be difficult to quantify its relative contribution.

WHAT TRUSTEES AND SENIOR ADMINISTRATORS CAN DO

The rapid rise in tuition rates has forced institutions to put increasing amounts of their unestricted funds into student aid instead of academic programs. The price escalation has altered the family income distribution of the student bodies in these selective private institutions, loading them up at the high end. That change results in a loss of diversity. It probably also results in a loss of educational opportunity for middle-income and lower income students who have to seek other programs. It may shift the students' campus experience at these schools more toward socializing and less toward study. And it probably means that the colleges are somewhat further out of touch with the concerns and values of the core of American society.

A financial-aid system funded originally by private charity and some tax revenues has progressivey become a tax system funded by the wealthy. As that tax grows, defending it becomes more and more difficult. We could defend that tax system when it was used to enhance the educational experience and promote social justice by enabling a diverse group of students to attend. Over time, we have seen the system used more and more as a marketing tool to help fill up entering classes.

Is there anything anyone can do to slow or reverse the trend? The answer is that there probably is not very much that can be done about the underlying causes.

* A major cause of the problem is the failure of family incomes to grow. That is a reflection of our national economic situation, of our inability to produce the increases in productivity that lead to growth in real wealth. It is unlikely that the country can turn that situation around in the short run.

* A second major factor is the intensifying competition for a shrinking pool of students academically capable enough to benefit from these curricula and wealthy enough to afford them. That pool is not going to grow materially for a number of years. The number of high school graduates will grow in the next decade, but these students may be less interested in our normal offerings; many of them will lack solid academic preparation, so they will need extra support services; and many will not be able to come close to paying the prices these colleges must charge.

The shift in distribution of students by family income has already taken place. It is extremely difficult for these

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colleges and universities even to slow down the rate of increase of their costs, much less to cut their prices. And it is not clear that a reduction in costs, even if it were possible, would result in a reversal of the trend toward upper income student bodies. Whether we find it rational or not, students and their families tend to equate price with value. A college that significantly cuts its prices is likely to be seen as having cheapened its product. (To cut its prices, a college will, in fact, have to cut costs by dropping or downsizing some significant offerings or functions.) It may do less well rather than better as a result.

Several colleges in this group have attempted to limit the damage to their operating budgets by capping the proportion that can be devoted to unrestricted aid. A public adoption of such a policy may raise the hackles of many on campus, but it usually produces almost magical results for admissions: The number of students applying for aid almost always decreases. This strategy limits the budget problem but accelerates the trend upward in family-income distributions among the enrolling students.

The federal government has ruled it improper to compare financial-aid offers to specific students. As practiced by the overlap group, this was an effective method for assuring that the participating institutions used reasonably similar calculations of need for aid in practice as well as in theory. The technique did not, of course, hold costs down at these schools, nor was it intended for that purpose. In combination with a policy of tuition restraint, this approach could have been helpful, but it no longer is available.

There is some effort under way to expand the scope and change the focus of federal student-aid funding. To the extent that these efforts seem appropriate to these colleges and universities, they should be supported. Since federal programs must apply to all institutions, however, and since the federal budget deficit imposes severe limits on the amounts that could be made available, it is unlikely they will provide major additional benefits to these private colleges.

Lest this paper end on a despairing note, governing boards can take certain steps:

<u>Hold down costs and therefore prices.</u>

* Trustees and senior administrators can be even tougher than they have been in resisting internal pressures to increase costs (and therefore prices.) One way of forcing institutions

to control costs is to restrain what they can charge. As a long-term policy, trustees might try to assure that the rate of change of their student charges does not outstrip the ability of parents to pay.

* Very few of these schools take self-assessment seriously. They spend almost nothing on "research and development" regarding the educational process. It is at least possible that focused study of what really helps students learn could result in better allocation of resources, in overall savings, and in an ability to market programs that were more clearly demonstrated to be effective.

* Only modest attention has been paid at most of these institutions to educational technologies. Where these have been employed, it is typically to enrich the educational experience rather than to make it more cost-effective. In both the academic and administrative areas, a focus on the use of technology to improve productivity might be helpful.

* Some of these institutions (though fewer than in the public sector) have begun programs of "total quality management" in the hopes of improving productivity and effectiveness. It is too early to assess the payoff from this investment in new skills and a change of approach, but it may hold promise.

Focus on specific strengths.

* Some institutions in this group might benefit from a product-differentiation strategy rather than trying to compete across the board. A college might pick particular fields to specialize in, concentrating its resources in producing the best possible programs in those areas. It might not offer other fields of study at all, saving money there and on student aid otherwise dedicated to across-the-board competition. There is already some product differentiation (for example, languages at Middlebury, great books at St. Johns of Annapolis), but there could be more.

* A more common strategy but one that could be further pursued, is market differentiation. Occidental College, for instance, sees a niche for itself in serving minorities in its area. Whether the focus is along geographic, religious, economic, or other lines, a clearer definition of purpose could facilitate internal decisions on priorities and cost control.

Develop and articulate a pricing policy.

* Perhaps the most important but most difficult action trustees and senior administrators could take is to adopt and publish an educationally desirable, publicly defensible, and economically viable pricing policy. This is perhaps the only defense against sinking further into the swamp of negotiated tuitions.

For a few institutions in this group, a vigorous reaffirmation of a policy of admission based on accomplishments and promise, and financial aid based on demonstrated need, will accomplish this purpose. These schools, however, must reexamine their preferential packaging practices and review their responses to students who shop for aid. Most of the institutions in this group simply do not have the market power to adopt such a clean pricing policy.

Some of these colleges and universities might adopt a public and well-documented policy of using a fixed amount of aid to attract a matriculating class of the size and character they desire. They may dedicate some of that aid to meeting financial need for some categories of students but may openly use the rest to recruit the mix of talents they want in their student body.

Others may wish to use their pricing policy as a tool in meeting their product-differentiation or market-differentiation strategies. That is, they may focus student aid to support students in the fields they want to specialize in or from the markets they favor. Other students might be admitted on a frank, pay-as-you-go basls.

Other appropriate strategies almost certainly can be adopted. Formulating and publicizing such strategies could serve institutions well--far better than the auto-dealership practices into which we seem to be falling.

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ABOUT THE AUTHOR

John A. Dunn, Jr. has been president of Dean Junior College in Franklin, Mass., since April, 1992. He held various positions at Tufts University from 1969 until 1981 when he became its vice president for planning. He left in 1989 to found the Center for Planning Information, Inc. (CPI), a not-for-profit research and information-sharing organization supporting colleges and universities. This study was conducted when he was executive director of CPI. Among other professional organizational roles, Mr. Dunn has been president of the Society for College and University Planning.